



Lux Solar

Saving Lives we will never meet

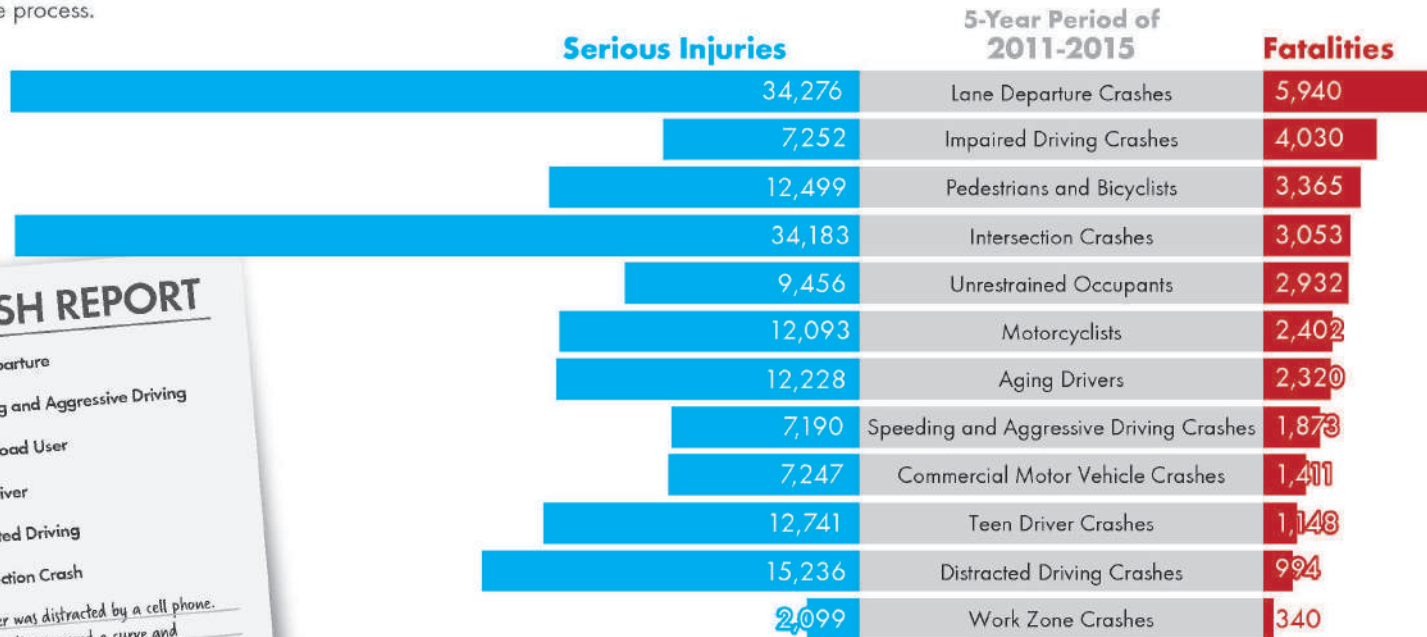


What Are the SHSP Emphasis Areas?

Thirteen Emphasis Areas are the primary focus for Florida's traffic safety improvement efforts. The Emphasis Areas were identified through a collaborative process that included:

- Review of fatality and serious injury data from 2011 to 2015 to identify and set priorities among Florida's most serious crash problems;
- Input from the existing strategic safety coalitions, MPOs, and other partners; and
- Consideration of public input from the FTP update process.

Safety coalitions oversee many emphasis areas and develop detailed strategic plans that identify targeted strategies and actions to reduce fatalities and serious injuries for each Emphasis Area. Florida relies on the "4 Es" - engineering, education, enforcement, and emergency response - as a tool to guide decision-making for improving roadway safety. The "4 Es" are used to help identify and organize overarching strategies that help guide the safety coalitions and other partners.



Note: Multiple factors are involved in almost every crash.
 Source: Department of Highway Safety and Motor Vehicles (2016).

More than 54 % of fatal crashes occur
at night.



Current Nighttime Curve and Lane Delineation Techniques:

- Centerlines and edge lines
- Warning signs
- Chevrons
- Post Delineators
- Raised Pavement Markers (RPM's)

...they need an external light source to be visible

...Limited visibility based on the light source

What do these devices all have in common?

Limited Curves visibility
at night...



Fog / heavy rain can be
worse...



Even street lights may not reveal the danger ahead...



Pedestrians are particularly vulnerable...



...and so are cyclists



Objectives
Mission
Vision

Safety

Maintenance

Innovation

Solution

Why Solar Markers?

- Internal self-emitting light source (LED)
- Do not rely on reflected light
- Solar-powered – no wires
- Visible from a 1,000 feet +



FHWA / MUTCD EFFECTIVE COUNTERMEASURES



NEEDS TO BE IN THE PATH OF THE LOW BEAM HEADLIGHTS



Lane
Departures



Speeding and
Aggressive
Driving

iiRPM .COM

Sharp Curve iiRPMs

UX



www.Lux-Solar.com

MDX Texas U Turn (Before)

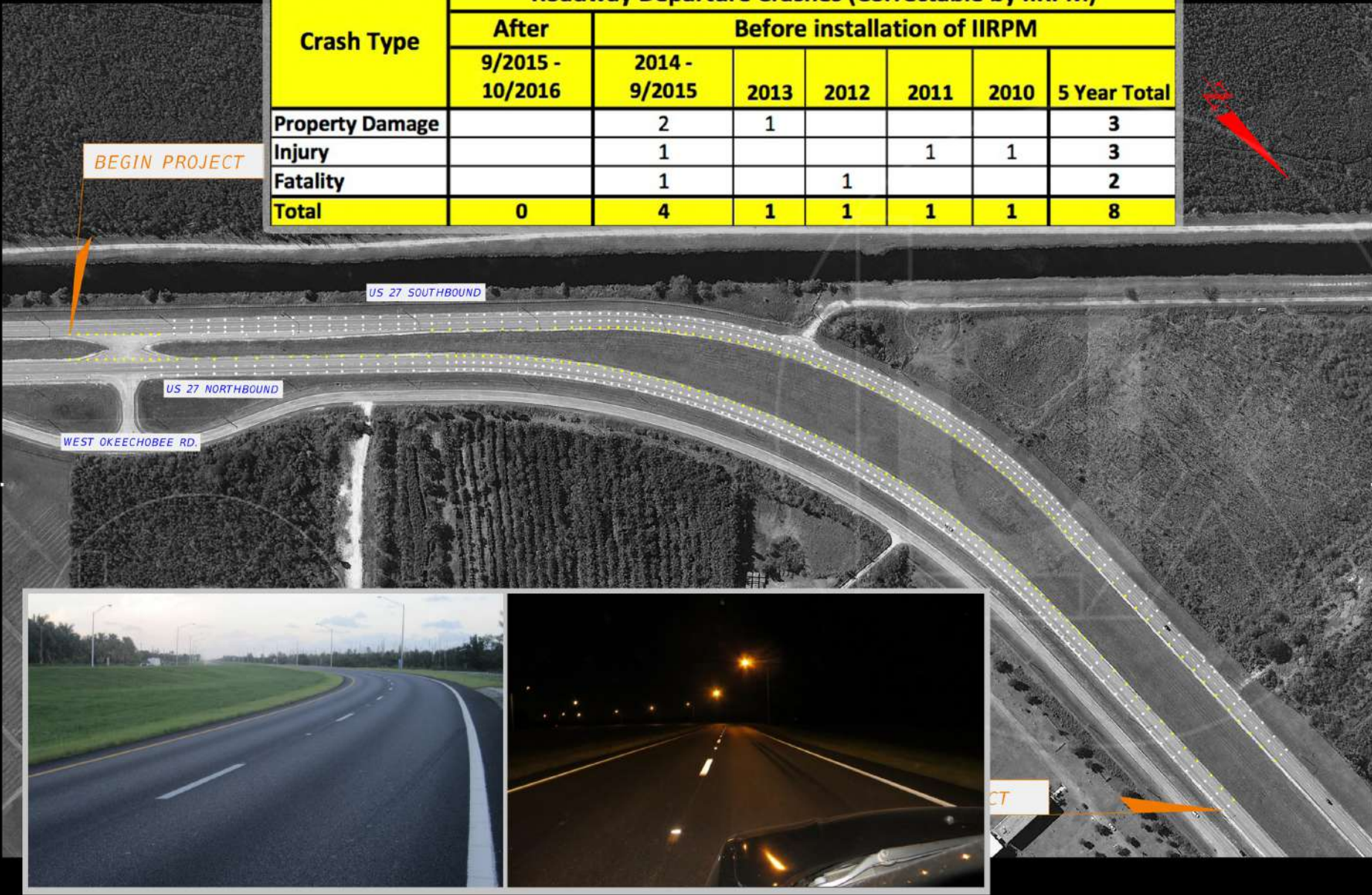


MDX Texas U Turn (After)



US27 (DADE / BROWARD) FDOT D6 (700 iiRPMs)

Crash Type	Roadway Departure Crashes (Correctable by IIRPM)						
	After	Before installation of IIRPM					5 Year Total
	9/2015 - 10/2016	2014 - 9/2015	2013	2012	2011	2010	
Property Damage		2	1				3
Injury		1			1	1	3
Fatality		1		1			2
Total	0	4	1	1	1	1	8



Roadway Departures account for 56% of all traffic fatalities in the U.S.

Pre: 56 Crashes (5 Years)
After: 1 Crashes (2 years)



iiRPM.COM



SR-211 JACKSONVILLE FL

FDOT D2

INSTALLED 400 iiRPMs

Benefit / Cost

iiRPM.COM



iiRPMs Lane Delineation

Item	2 Lanes Undivided	4 Lanes Divided
Annual Cost (Mile / Year)	\$19,700 (30 Miles)	\$39,400 (15 Miles)

FDOT Average Crash Costs (Facility Type)

2 -Lane UN= \$ 589,421 ❖ 4-Lane DV= \$ 519,109



**Impaired
Driving**



**Aging Road
Users**

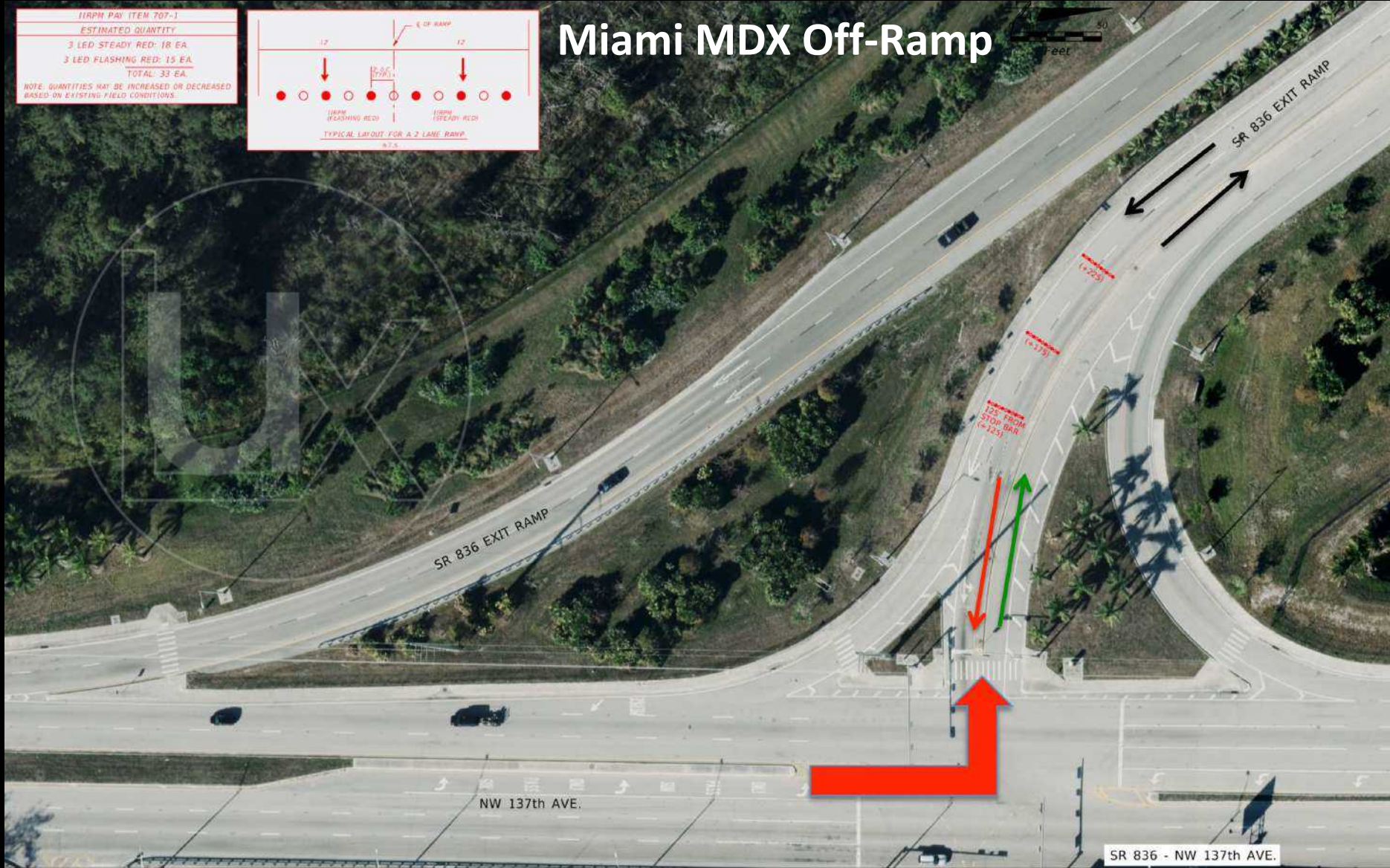
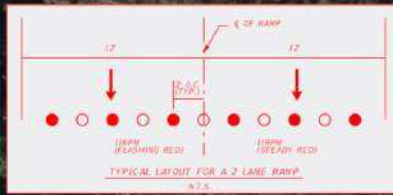


**Distracted
Driving**

Wrong Way Prevention

Miami MDX Off-Ramp

LRPM PAY ITEM 707-1
ESTIMATED QUANTITY
3 LED STEADY RED: 1R EA
3 LED FLASHING RED: 15 EA
TOTAL: 33 EA
NOTE: QUANTITIES MAY BE INCREASED OR DECREASED
BASED ON EXISTING FIELD CONDITIONS.



NW 137th AVE.

SR 836 - NW 137th AVE.

Wrong-Way Prevention In-Road Solar Powered LED Lights

WRONG
WAY

MDX SR-836 WBSW 107TH AVE

MADE IN
WWW.iirpm.com **USA** PATENT PENDING



The logo features the word "Lux" in a large, stylized font with a circular outline. Below it, "LS1000+" is written in a bold, sans-serif font, followed by "iirpm.com" in a smaller font. A small red plus sign is positioned between "LS1000" and "iirpm".



WRONG
WAY

iiRPM.COM
UX LS1000+

WRONG
WAY

WRONG
WAY



URPM.COM
LS1000+



Benefit / Cost

iiRPM.COM



iiRPMs Wrong Way

Item	One Lane Ramp	Two Lane Ramp
Total Cost	\$6,200 (132 Ramps)	\$9,900 (83 Ramps)

FDOT Average Crash Costs (Severity)

Severe Injury = \$ 818,636 ❖ Fatality = \$ 10,100,000



Pedestrians and Bicyclists



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IN-ROAD iiRPM's WITH ROADSIDE FLASHERS



LS1000+ **iiRPM**.COM



BIKE LANES

SOLAR IN-ROAD LIGHTS

LS1000+



Benefit / Cost

iiRPM.COM



Pedestrian & Bicycles In-Road Lights & iiRPMs

**Pedestrian
Mid- Block Crosswalk**

**\$32,490
(25 Crosswalks)**

**Bicycle Lane
Annual Cost (Mile/Year)**

**\$12,100
(68 Miles)**

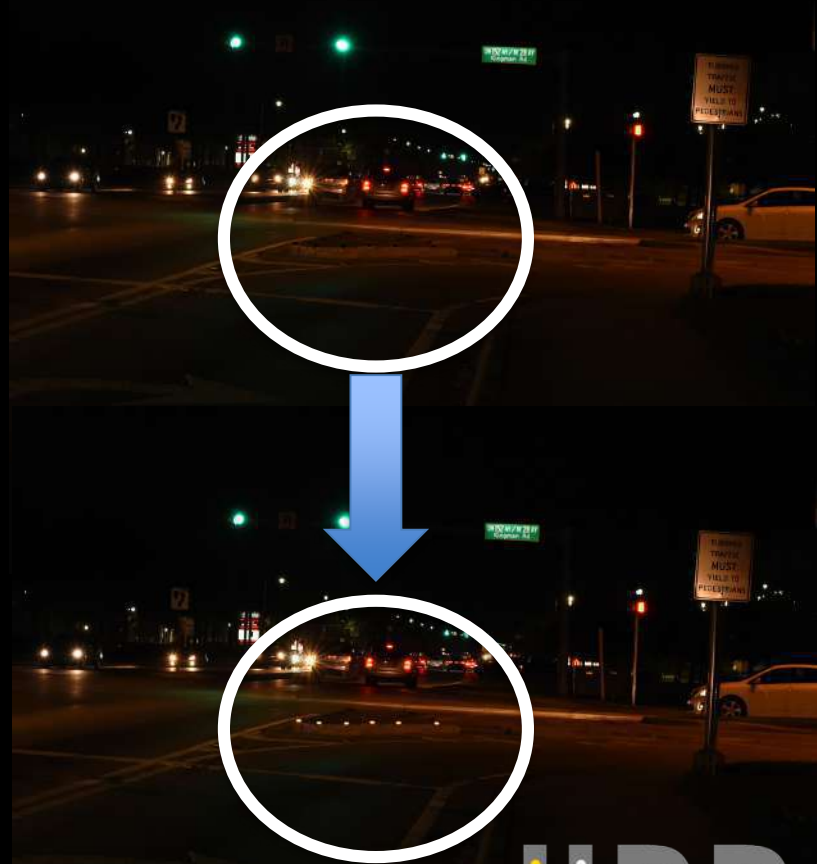
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Intersections

Medians, Islands & Traffic Separators





LS1000+

Roundabout

iiRPMTM.COM

iiRPM

LUX

www.iiRPM.com **MADE IN USA**



Lux Solar

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A dark night photograph of a street. On the right side, a red octagonal stop sign is visible, illuminated from within. The word "STOP" is written in white capital letters on the sign. The rest of the image is mostly black, with a few small, distant lights visible in the background, suggesting a residential or commercial area at night.

STOP

BENEFITS

Longevity:

Hybrid capacitor (50,000 Cycles) “ > 10 Years ”
Battery (500 – 2,000 Cycles) “ 1 to 3 Years ”

Durability:

Embedded In-Road (< 1/4” above surface)
Durable Housing (120K Lbs) & Proven Epoxy

Installation

Solar (Easy installation & zero maintenance)
Wired (Costly installation & Constant Maintenance)

ZERO Maintenance





ROAD TO ZERO



Safety Solution

Financial Benefits



Economical Advantages

Public Support



Community Traffic Safety Team